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THE COMPUTER BULLETIN

82 No. 4

DHEIN'S True Value HARDWARE STORE®

SPECIAL TI Fest ISSUE

COMPUTER SALES
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Phone: 319/ 236-3861

SAN FRANCISCO
OCTOBER 24-26, 1982

Prices and specifications subject to change without notice.

WHAT TO DO WITH A TI 99/4(A) HOME COMPUTER

Certainly today it is easy for the knowledgeable small business man to justify to himself and others the purchase of a small computer. The advantages are well known, and if the business man knows how to go about getting and using the right software for his application, he can save the cost of the computer many times over. The same is true for the austute professional running his own office — doctor, lawyer, accountant, salesman, etc.

But what about the computers bought solely for personal use — many times by a person who has only a vague general idea of what he wants to do with it and an even vaguer idea of what it can do for him. He has ideas of using it to entertain and educate his family — "to play games on" and to "learn to program." At the low price of computers today, these are good reasons for having a computer at home. But how do you justify this to yourself and to your friends when they ask, "But what do you DO with it — besides play games?" There IS more....much more. Below are some ideas to get you started. The ideas in the first group are backed up by already-existing programs. The modules require only your computer and screen to operate. The tape programs also require a cassette recorder and connecting cable. The programs marked with an asteric are user-written programs from the International 99/4 User's Group. You may contact them for information on how to obtain these programs: Charles LaFara, International 99/4 Users-Group, P.O. Box 67, Bethany, OK 73008. The rest of the software may be ordered directly from us. We stock everything made by Texas Instruments for the 99/4(A) as well as a large variety of other quality items for the 99/4(A).

For the Beginning Enthusiast:

1. Read the Beginners's Manual and experiment with the great color graphics and music ability of your new machine.

2. Now look at the Reference Manual and type in the Checkbook Balance program on page 111-22. Then use it.

3. Practice your typing. (PHM 3064)

4. Teach Yourself Basic. (PHT 6007)

5. Host a Chess Tournament for your friends. (PHM 3008)

6. Football: have you always secretly felt that you could call the plays better than some of those professionals? Find out for sure. (PHM 3009)

7. Going on a diet? Let the computer help you decide how much to lose (or gain), make suggestions on what to eat, and help you stick to your goal. (PHM 3021)

8. Make a file of your favorite recipes or use one already available. (7017* & PHM 3026)

9. Take a health test written by a physician. (7023)*

10. Become a Master Speller. (PHM 3059, PHM 3060, PHM 3061, PHM 3062; also PHT 6042 which requires a speech synthesizer and PHM 3035)

11. Then stage an old-fashioned Spelling Bee! (4352)*

12. Test your family's musical ability. (PHT 6009)

13. Compose your own music and play it back. (PHT 6011, PHM 3020)

14. Start a collection of your favorite songs played on the computer. Include the ones you have composed yourself. Use the Music Maker (PHM 3020) for a starter if you like, but you don't have to stop there.

15. Turn your computer into a 7-day digital clock which will allow you to program up to 14 messages into it at the times you specify. (7013)*

16. Use your computer to handicap the ponies at the race track. (5417)*

17. Start that exercise program you've been thinking about. Your computer can help you plan it, and, believe it or not, encourages you to stay with it! (PHM 3010)

18. Solve Rubik's Cube. (The Cube)

19. Introduce a friend to High Adventure — play Pirate's Adventure. See who can come up with the best ideas for getting that ship built in a hurry. And how do you get rid of the snakes? (PHM 3041T)

20. When you're finished with that one, see if you can find your way out of the Mystery Fun House (if you can get in, that is). (Mystery Fun House PHT 6051 & PHM 3041)

21. Satisfy your artistic instincts by designing a computer picture or pattern (or you can doodle). (PHM 3005)

22. Design a house then cost it. (5429)*

23. Index your book or record library, or your hobby collection. (PHM 3013)

24. Make a reference library for your magazine collection. (PHM 3013)

25. Turn your home into the fanciest arcade in the neighborhood with Tombstone City, TI Invaders, Car Wars and Munch Man. (PHL 7009, PHM 3057)

26. Tired of eating the same old thing day after day? Your computer will provide you with weekly menus according to yor family's food preferences. (PHM 3021)

27. Learn the 50 states and their capitals the easy way. (4335)*

28. Play a game of Guess the President with your computer. (1015)*

29. Now test your ability to name the presidents of the United State in order of office. (4334)*

30. Introduce your preschooler to the computer with Early Learning Fun and watch his face when he finds out HE'S the one that makes things happen. (PHM 3002)

31. Teach your child to read — Your computer will be glad to help. (PHM 3043; PHM 3015 with speech synthesizer)

32. Increase your reading speed. (4364)*

33. Are you a serious investor? Ask your computer for advise when analyzing those stocks and bonds. (PHM 3012)

34. Play Battleship in Spanish. (1168)*

35. See who can get the highest score on Alien Attack. Winner get to play Invade the Empire first! (Space Games)

[**Continued on inside back cover**]

PRICE LIST

(ORDER FORM ON INSIDE BACK COVER)

The following price list contains our entire stock. Listed along with each piece of software, peripheral or accessory is any additional equipment needed in order to use it. In addition, cassettes will need a tape recorder and a Dual Cassette Cable, and Diskettes will require a disk system.

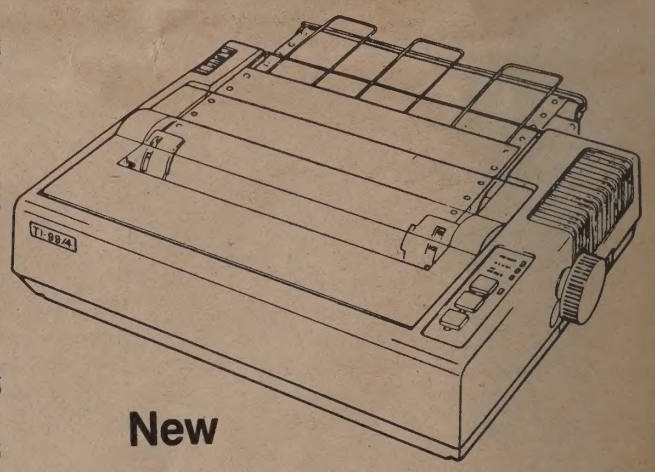
DHEIN'S carries everything TI makes for the TI 99/4(A) Home Computer, as well as related acessories and a growing supply of 3rd Party Software. At present, we are shipping within a day of receiving an order. At any given time we have about 90% of the stock right on our shelves. What we do not have is put on Back Order and the customer is notified. Back Orders are filled as soon as a new shipment is received.

All items that are in stock at the time the COMPUTER BULLETIN goes to press are preceeded by three stars (***). Items preceeded by two stars (**) are temporarily out of stock but are expected in very soon. Items marked with one star are new or are in very short supply. While we have orders in for these items, TI is either filling orders only partially, or first delivery is still some time off. Items with no stars are newly anounced products. Although they can be ordered now, we do not yet have a shipping date for them.

It is our hope that these notes will assist you in planning your order. Please see the inside of the back cover for additional shipping information.

TEXAS INSTRUMENTS PRODUCTS LIST

	Model #	Name		
		CONSOLE		
***	PHC004A	Basic Package (Includes 99/4A Console, PHA2100 TV Adaptor, PHA2602 Beginning Basic Manual, PHA2603 User's Reference Guide)	295.95 -100.00 195.95	our low price REBATE from TI What a deal!
		STARTER PACKAGE SPECIAL (Includes Basic Package above plus PHA2000, Dual cassette Cable which connects to 1 or 2 cassette recorders.)	306.95 -100.00 206.95	our low price REBATE from TI What a deal!
		PERIPHERALS		
*	PHP1200	Peripheral Expansion System ..... Note: The Peripheral Expansion Box, PHP1200, will be in short supply for the rest of 1982. Paid orders are processed first with each shipment. If any are left, persons who have asked to be called are notified. it is expected that for the near future, the que on paid orders will take all received.	185.95	
***	PHP1220	RS232 CARD	125.95	
***	PHP1240	Disk Controller Card (one Disk Manager Module packed with each Disk Controller)	178.95	
***	PHP1250	Expansion System Disk Drive (Disk Drive Controller req.)	285.95	
***	PHP1260	Memory Expansion Card (32K RAM)	212.95	
**	PHP1270	P-Code Card (32K RAM Memory Expansion required)	178.95	
	PHP1280	Pascal Dev. System - Includes P-Code Card (PHP'1270), UCSD Pascal[2] Compiler (PHD 5063), UCSD P-System[2] Assembler/Linker (PHD 5064), and UCSD P-System[2] Editor/Filer/Utilities (PHD 5065)	369.95	
***	PHP1500	Speech Synthesizer ..... Note: We have a temporary overstock of Speech Synthesizers. If you know of anyone needing a quantity of these (i.e. schools) let them know we have a very competive price.	97.95	
*	PHP1600	Phone Modem (RS232 required)	159.59	
***	PHP1850	Disk Drive (Disk Controllers required)	355.95	
***	PHP2500	TI Impact Printer	519.95	
***	PHP2300	Video Controller (The Video Controller is intended for industrial and commercial use. It is not intended for use in the home.)	499.95	
***	PHP2400	P-Code Peripheral (Memory Expansion required)	288.95	
***	PHA2100	RF Modulator (TV Adaptor)	36.95	
***	PHA4100	10" Color Monitor	327.95	
		OPTIONAL ACCESSORIES		
***	PHP1100	Wired Remote Controllers (Joysticks) (Pair).....	25.95	
***	PHA1950	Thermal Paper (2 Pack)	7.95	
***	PHA2000	Dual Cassette Cable	11.95	
***	PHA2010	Monitor Cable	16.95	
***	PHA2020	Audio Adaptor (Headphone Jack)	16.95	
***	PHA2310	Panasonic Video Controller Cables	82.95	
***	PHA2320	Sony Video Controller Cables	82.95	
	PHA2330	Pioneer Video Controller Cables	82.95	
***	PHA2605	Blank Overlays for TI 99/4 (4 Pack)	6.95	
		DOCUMENTATION		
***	PHA2600	Beginner's Basic Manual (TI 99/4 only)	8.95	
***	PHA2601	User's Reference Guide (TI 99/4 only)	8.95	
***	PHA2602	Beginner's Basic Manual (TI 99/4A only)	8.95	
***	PHA2603	User's Reference Guide (TI 99/4A only)	8.95	
***	PHA2606	Creative Programming Computer Comp. Series--Volume I	8.95	
***	PHA2607	Creative Programming Computer Comp. Series--Volume II ...	8.95	
***	PHA2608	Creative Programming Computer Comp. Series--Volume III ..	8.95	
***	PHA2609	Creative Programming Com. Comp. Ser.--All Star Projects .	8.95	
***	PHA2611	Logo Curriculum Guide	36.95	
***	PHA2612	Editor/Assembler Manual	14.95	



New

This TI Impact Printer, manufactured by EPSON for Texas Instruments features 80 characters per second bidirectional printing, four print sizes and graphics. It also includes international character sets for USA, France, Germany, England, Denmark, Sweden, Italy and Spain. It features a long-life dot matrex print head that's easily replaced for fast repairs. The printer can handle 40, 66, 80 and 132 column widths. Note that the price includes a serial interface in the printer and the connecting cable. An RS232 Interface is required for the computer and is all that is needed to hook up to your 99/4(A). Paper width is four to ten inches.

[2]UCSD, UCSD Pascal and UCSD p-System are all trademarks of the Regents of the University of California.

HOME MANAGEMENT/PERSONAL FINANCE

Command Modules

***	PHM3006	Home Financial Decisions	21.95
**	PHM3007	Household Budget Management (Data Storage System recom.)	29.95
***	PHM3012	Securities Analysis	42.95
***	PHM3013	Personal Record Keeping (Data Storage System recom.)	37.95
***	PHM3016	Tax/Investment Record Keeping (Disk System is required)	52.95
***	PHM3022	Personal Real Estate (Data Storage System recommended)	52.95
***	PHM3044	Personal Report Generator (Data Storage System recom.)	37.95
	PHM3111	TI Writer (32K Memory Expansion; RS232; Printer; Disk Drive and Controller are required) (Available for TI 99/4A only)	73.95
	PHM3113	Microsoft™ Multiplan™ (32K Memory Expansion; Disk Drive and Controller are required; RS232 and Printer are recommended)	73.95

Diskette

**	PHD5001	Mailing List	52.95
***	PHD5003	Personal Financial Aids	15.95
***	PHD5021	Checkbook Manager	15.95
***	PHD5022	Business Aids Library - Finance Manasemnt (Extended Basic Command Module required)	30.95
***	PHD5024	Business Aids Library - Inventory Manasmt (Personal Record Keeping or Statistics Command Module and Printer are required)	52.95
***	PHD5027	Business Aids Library - Invoice Manasemt (Personal Record Keeping or Statistics Command Module and Printer required)	52.95
***	PHD5029	Business Aids Library - Cash Manasement (Extended Basic Command Module is required)	29.95
***	PHD5038	Business Aids Library - Lease/Purchase Decisions (Printer recommended)	52.95
	PHD5077	Personal Tax Plan (Aardvark Software Inc.) (P-Code and 32K Memory Expansion is required; RS232 and Printer are recommended)	73.95

Cassette

***	PHT6003	Personal Financial Aids	11.95
***	PHT6038	Business Aids Library - Lease/Purchase Decisions (Printer is recommended)	44.95

EDUCATION/PERSONAL ENRICHMENT

Command Modules

Texas Instruments Packages

***	PHM3002	Early Learning Fun	21.95
***	PHM3003	Beginning Grammer	21.95
***	PHM3004	Number Magic	15.95
***	PHM3005	Video Graphs	15.95
***	PHM3008	Video Chess	52.95
***	PHM3010	Physical Fitness	21.95
***	PHM3020	Music Maker (Data Storage System is recommended)	29.95
***	PHM3021	Weight Control and Nutrition (Data Storage System recommended)	44.95
***	PHM3040	TI Logo (32K Memory Expansion required)	69.95
	PHM3064	Touch Typing Tutor (Available for TI 99/4A only)	29.95
	PHM3109	TI Logo II (32K Memory Expansion is required)	73.95

Scott, Foresman Reading & Math

***	PHM3015	Early Reading (Speech Synthesizer is required)	41.95
***	PHM3043	Reading Fun (Speech Synthesizer is recommended)	41.95
	PHM3046	Reading On	41.95
***	PHM3047	Reading Roundup	41.95
	PHM3048	Reading Rally	41.95
	PHM3082	Reading Flight	41.95
***	PHM3027	Addition & Subtraction I (Speech Synthesizer recom.)	29.95
***	PHM3028	Addition & Subtraction II (Sp. Synthesizer recommended)	29.95
***	PHM3029	Multiplication I (Speech Synthesizer recommended)	29.95
	PHM3049	Division I (Speech Synthesizer recommended)	29.95

Scholastic Packages

***	PHM3059	Scholastic Spelling - Level 3 (Sp. Synthesizer required)	44.95
***	PHM3060	Scholastic Spelling - Level 4 (Sp. Synthesizer required)	44.95
***	PHM3061	Scholastic Spelling - Level 5 (Sp. Synthesizer required)	44.95
***	PHM3062	Scholastic Spelling - Level 6 (Sp. Synthesizer required)	44.95

Addison-Wesley Comp. Math Games (Developed by Addison-Wesley)

***	PHM3083	Math Games II	29.95
	PHM3088	Math Games IV	29.95

Milliken Home Math Series - K through 8th Grade

	PHM3090	Addition	29.95
	PHM3091	Subtraction	29.95
	PHM3092	Multiplication	29.95
	PHM3093	Division	29.95
	PHM3094	Intesers	29.95
	PHM3095	Fractions	29.95
	PHM3096	Decimals	29.95
	PHM3097	Percents	29.95

Developed by Microsoft™, Inc. Multiplan™ is a trademark of Microsoft™, Inc.

EDUCATION/PERSONAL ENRICHMENT (continued)

Diskette
Texas Instruments Packages

***	PHD5007	Teach Yourself BASIC	25.95
***	PHD5009	Music Skills Trainer	23.95
***	PHD5011	Computer Music Box	15.95
***	PHD5018	Market Simulation	15.95
***	PHD5019	Teach Yourself Extended BASIC (Extended BASIC Command Module required)	19.95
***	PHD5020	Music Maker Demo (Music Maker Module is required)	11.95
***	PHD5023	Basketball Statistics (Extended Basic Module required)	19.95
***	PHD5026	Bridge Bidding I	23.95
***	PHD5030	Speak & Spell™ Program (Speech Synthesizer required)	22.95
***	PHD5031	Speak & Math™ Program (Speech Synthesizer and Terminal Emulator II required)	22.95
***	PHD5039	Bridge Bidding II	22.95
***	PHD5041	Bridge Bidding III	22.95
***	PHD5042	Spell Writer (Speech Synthesizer and Terminal Emulator II required)	22.95
	PHD5067	Beginner's BASIC Tutor	

MECC Packages (Developed by Minn. Ed. Computing Consortium)
(The Extended BASIC Command Module req. for each MECC Pkg.)

	PHD5078	Metric & Counting	22.95
	PHD5079	Elementary Economics	22.95
	PHD5080	Elemtary Math and Science	22.95
	PHD5081	Astronomy	22.95
	PHD5082	Word Beginnings	22.95
	PHD5083	Exploring	22.95
	PHD5084	Math Practice	22.95
	PHD5085	Science Facts	22.95
	PHD5086	Natural Science	22.95
	PHD5087	Social Science	22.95
	PHD5088	Teacher's Tool Box (Printer also required)	22.95

Cassette

***	PHT6007	Teach Yourself BASIC	22.95
***	PHT6009	Music Skills Trainer	19.95
***	PHT6011	Computer Music Box	11.95
***	PHT6018	Market Simulation	11.95
***	PHT6019	Teach Yourself Extended BASIC (Extended BASIC Module required)	15.95
***	PHT6026	Bridge Bidding I	19.95
**	PHT6031	Speak & Math™ Program (Speech Synthesizer and Terminal Emulator II required)	19.95
***	PHT6039	Bridge Bidding II	19.95
***	PHT6041	Bridge Bidding III	19.95
***	PHT6042	Spell Writer (Speech Synthesizer and Terminal Emulator II Module required)	19.95
	PHT6067	Beginner's BASIC Tutor	19.95

ENTERTAINMENT

Command Modules
Texas Instruments Packages

***	PHM3009	Football	22.95
***	PHM3018	Video Games I	22.95
***	PHM3023	Hunt the Wumpus	19.95
***	PHM3024	Indoor Soccer	22.95
***	PHM3025	Mind Challengers	19.95
***	PHM3030	A-Maze-Ing	19.95
***	PHM3052	Tombstone City	29.95
***	PHM3053	TI Invaders	29.95
***	PHM3054	Car Wars	29.95
***	PHM3057	Munch Man	29.95
***	PHM3042D	Tunnels of Doom (2 Diskette games included)	44.95
***	PHM3042T	Tunnels of Doom (2 Cassette games included)	44.95
	PHM3056	Alpiner	29.95
***	PHM3110	Chisholm Trail	29.95
	PHM3112	Parsec	29.95

Milton Bradley Packages

***	PHM3031	The Attack††	29.95
***	PHM3032	Blasto††	19.95
***	PHM3033	Blackjack & Poker††	19.95
***	PHM3034	Hustle††	19.95
**	PHM3036	Zero Zap††	15.95
***	PHM3037	Hangman††	15.95
***	PHM3038	Connect Four††	15.95
***	PHM3039	Yahtzee††	19.95

††Developed by Milton Bradley — The Attack, Blasto, Hustle, ZeroZap, Connect Four and Yahtzee are trademarks of Milton Bradley.

Adventure International Packages developed by Scott Adams

***	PHM3041D	Adventure (Pirate Adventure Diskette same included)	35.95
***	PHM3041T	Adventure (Pirate Adventure Cassette same included)	35.95

Gabriel Industries Packages

	PHM3067	Othello	29.95

Diskette

Texas Instruments Packages

***	PHD5002	TI Trek (With optional speech)	10.95
***	PHD5010	Mystery Melody	10.95
***	PHD5015	Oldies but Goodies Games I	15.95
***	PHD5017	Oldies but Goodies Games 2	19.95
***	PHD5025	Saturday Night Bingo (Extended Basic Module required) ...	22.95
***	PHD5037	Draw Poker (Extended Basic Module required).....	19.95
***	PHD5057	Tombstone City (32K Memory Expansion and Extended Basic Module required)	15.95
***	PHD5058	TI Invaders (32K Memory Expansion and Extended Basic Module or Editor/Assembler Module required)	15.95
***	PHD5060	Munch Man (32K Memory Expansion and either Extended Basic or Editor/Assembler Module required) ...	15.95

Adv. International Adv. Series

**	PHD5046	Adventureland	22.95
***	PHD5047	Mission Impossible	22.95
***	PHD5048	Voodoo Castle	22.95
***	PHD5049	The Count	22.95
***	PHD5050	Strange Odyssey	22.95
***	PHD5051	Mystery Fun House	22.95
***	PHD5052	Pyramid of Doom	22.95
***	PHD5053	Ghost Town	22.95
***	PHD5054	Savage Island	29.95
***	PHD5056	Golden Voyage	22.95

Cassette

Texas Instruments Packages

***	PHT6010	Mystery Melody	7.95
***	PHT6015	Oldies but Goodies Games I	10.95
***	PHT6017	Oldies but Goodies Games II	15.95
***	PHT6025	Saturday Night Bingo (Speech Synthesizer required)	19.95
***	PHT6037	Draw Poker	14.95

Adv. International Adv. Series

***	PHT6046	Adventureland	22.95
***	PHT6047	Mission Impossible	22.95
***	PHT6048	Voodoo Castle	22.95
***	PHT6049	The Count	22.95
***	PHT6050	Strange Odyssey	22.95
***	PHT6051	Mystery Fun House	22.95
***	PHT6052	Pyramid of Doom	22.95
***	PHT6053	Ghost Town	22.95
***	PHT6054	Savage Island	28.95
***	PHT6056	Golden Voyage	22.95

OTHER APPLICATION PROGRAMS

Command Modules

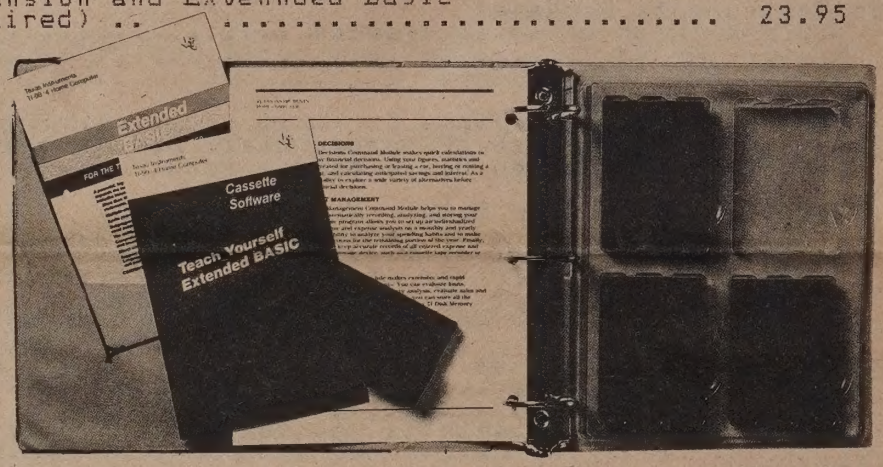
***	PHM3001	Demonstration	53.95
**	PHM3011	Speech Editor (Speech Synthesizer required)	34.95
**	PHM3014	Statistics (Data Storage system recommended)	35.95
***	PHM3026	Extended BASIC	73.95
***	PHM3035	Terminal Emulator 2	37.95

[3]Othello is a trademark of Gabriel Industries.

***	PHM3055	Editor/Assembler (Disk System and 32K Memory Expansion required)	73.95
***	PHM3058	Mini-Memory	73.95
	PHM3045D	SMU Electrical Engineering Library (Course is designed to be used with Circuit Analysis I textbook). (2 Diskettes included)	119.95
	PHM3045T	SMU Electrical Engineering Library (10 Cassettes included) (Course is designed to be used with Circuit Analysis textbook.)	119.95
		Cassette	
***	PHT6004	Programming Aids 1	7.95
***	PHT6006	Math Routine	19.95
***	PHT6008	Electrical Engineering Library	19.95
***	PHT6013	Graphing Package	11.95
***	PHT6016	Structural Engineering Library	19.95
	PHT6044	AC Circuit Analysis	19.95
		Diskette	
***	PHD5004	Programming Aids 1	11.95
***	PHD5005	Programming Aids 2	19.95
***	PHD5006	Math Routine Library	22.95
***	PHD5008	Electrical Engineering Library	22.95
***	PHD5012	Programming Aids 3 (Extended Basic Module required)	15.95
***	PHD5013	Graphing Package	15.95
***	PHD5016	Structural Engineering Library	22.95
	PHD5044	AC Circuit Analysis	22.95
***	PHD5063	UCSD-PASCAL Compiler (32K Memory Expansion and P-Code required)	93.95
***	PHD5064	UCSD p-System Assembler/Linker (32K Memory Expansion and P-Code required)	74.95
***	PHD5065	p-System Editor/Filer/Utilities (32K Memory Expansion and P-Code required)	56.95
	PHD5066	TI PILOT (32K Memory Expansion and P-Code required)	61.95
	PHD5068	Course Designer Authoring Package (Extended Basic Module required and Video Controller optional)	149.95
	PHD5075	Text-to-Speech (English) (Speech Synthesizer, 32K Memory Expansion and Extennded Basic Module are required)	23.95

Software Albums

Software albums are a great idea: Two or three Command Modules dealing with similar subjects, packaged together. Buy an album, and you've got instant computer expertise in an entire field—and it costs less than buying modules separately. The modules come in a specially designed binder for easy storage.



		SOFTWARE LIBRARIES	
***	PHL7001	The Home Financial Manager (Data storage system req.) ... Home Financial Decisions, Household Buget Management, Personal Real Estate	99.95
***	PHL7002	The Family Entertainer ..... The Attack††, A-Maze-ing, Hunt the Wumpus	64.95
***	PHL7003	The Elementary Educator (Speech Synthesizer recommended) Beginning Grammar, Addition and Subtraction I,† Early learning Fun	72.95
***	PHL7004	Music Educator (Data storage system recommended) ..... Music Maker, Music Skills Trainer cassette	48.95
***	PHL7005	The Super Programmer ..... Extended BASIC, Teach Yourself Extended BASIC cassette	88.95
***	PHL7006	The Scott Foresman Speaking Math Teacher (Speech Synthesizer is recommended) ..... Addition and Subtraction I†, Add and Subtract II†, Multiplication I†	88.95
***	PHL7007	The SF Speaking Reading Teacher (Speech Synthesizer required) ..... Early Reading†, Reading Fun†	82.95
***	PHL7008	The Speaking Scholastic Spelling Teacher (Speech Synthesizer required) ..... Scholastic Spelling - Level 3, Level 4, Level 5, Level 6	159.95
***	PHL7009	TI Arcade Game Series ..... Tombstone City, TI Invaders, Car Wars	88.95
***	PHL7010	The Milton Bradley Game Series ..... Blastoff, Hustlett, Zero Zaptt, Connect Four††, Yahtzeett	89.95
***	PHL7011	The Computer Introductory Package (Data storage system and Speech Synthesizer recommended) .... Household Budget Managment, TI Invaders, Multiplication I	88.95

[2]UCSD, UCSD Pascal and UCSD p-System are all trademarks of the Regents of the University of California.

†Developed by Scott, Foresman

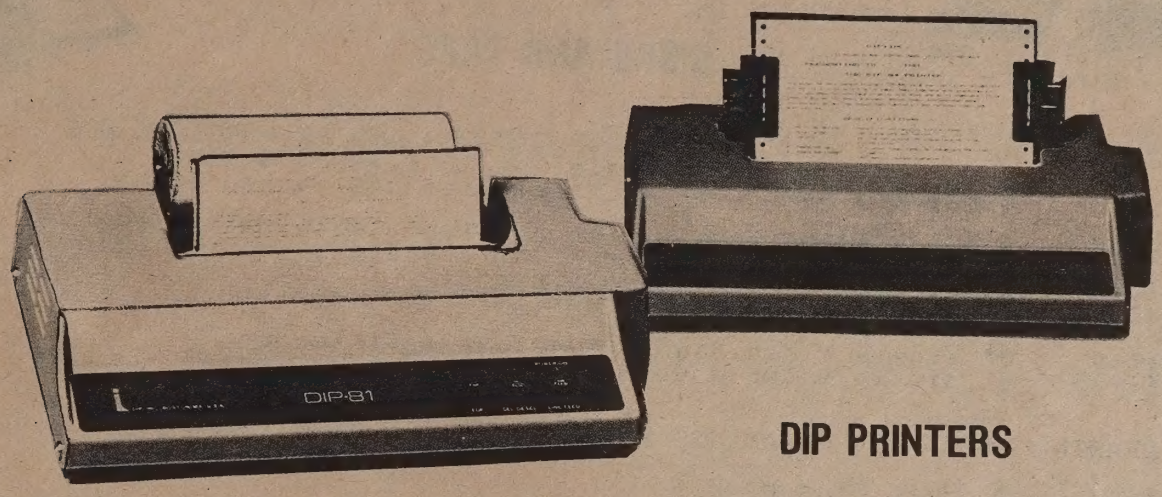
††Developed by Milton Bradley — The Attack, Blasto, Hustle, ZeroZap, Connect Four and Yahtzee are trademarks of Milton Bradley.

†††Developed by Microsoft™, Inc. Multiplan™ is a trademark of Microsoft™, Inc.

PRINTERS

THE TEXAS INSTRUMENNTS OMNNI 800 SERIES

MODEL #	DESCRIPTION	OUR LOW PRICE
840 RO	Receive Only Printer	$ 849.95
810 RO	Receive Only Printer	1449.95
820 RO	Receive Only Printer	1699.95
820 KSR	Keyboard Send-Receive Printer	1849.95



DIP PRINTERS

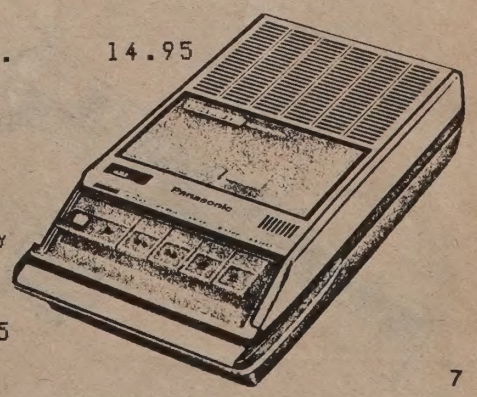
The series 80 DIP printer, models DIP-81 and 84G is a family of HI-Q (High Quality) low cost dot matrix printers. They feature 7x7 or 14x7 matrix printing, upper/lower case character set, 100cps bidirectional print-speed, dot and block graphics, "finger clean" ribbon cartridge, and a low profile.

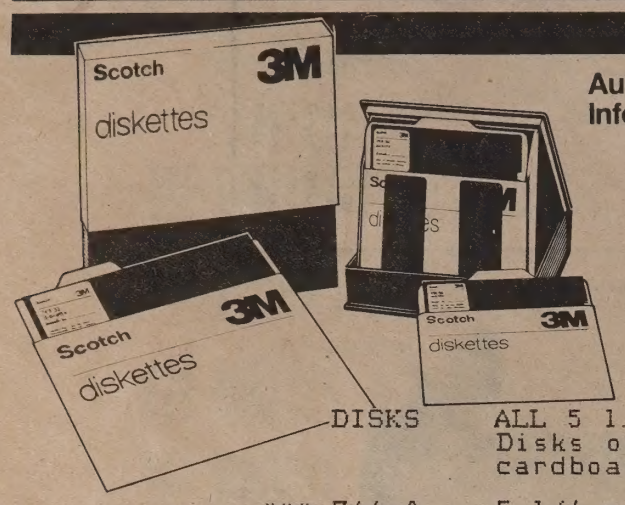
These printers are designed for maintenance ease and high reliability. It can be operated at 100% duty cycle. DIP-81 is intended for general print-out, DIP-84G features tractor and graphic capability. With extensive features and options to choose from, they are ideally suited for small business, educational, professional data processing, as well as industrial, laboratory and personal computing applications.

MODEL #	DESCRIPTION	OUR LOW PRICE
81-Pkg	TI 99/4(A) Package - Includes Basic Unit, RS232 option, 3' Cable and Manual; all that is needed to hook up directly to the 99/4(A) Computer's interface (PHP 1200 or PHP 1700 also required)	
84G	Printer - Basic Unit includes RS232S Interface option, Friction Feed, Tractors, High Resolution Graphics and Manual (also requires Cable and and PHP 1200 or PHP 1700 to operate with 99/4(A))	599.95
84G-Pk A	Printer, Basic Unit above plus 3 foot Cable	624.95
84G-Pk B	Printer, Basic Unit above plus Package A plus 2K Buffer	649.95
84G-Pk C	Printer, Basic Unit above plus Package B plus 9600 Baud Interface	674.95
ACCESSORIES		
***	3 ft Cable (connects printer to PHP 1700 or PHP 1200 TI Interface)	29.95
***	4 ft Cable	30.95
***	6 ft Cable	31.95
***	8 ft Cable	32.95
***	10 ft Cable	33.95
	Note: If a longer cable than 3' is desired, specify the desired length and add the difference in price ($1.00 extra for the 4'; $2.00 extra for the 6', etc.)	
***	Single Sheet Paper Tray	39.95
***	Soundproof cover for Tractor (84G only) (Unit comes with internal soundproofing)	30.00
SUPPLIES		
***	Roll Paper 8 1/2 inches, 4 1/2 ins. diam.	4.95
***	Fanfold Paper 9 1/2 X 11" with tear-off tractor holes. Finished sheet 8 1/2 X 11" 20lb letter quality.	35.95
***	Ribbon Cartridge - 5 million character life expectancy. You do not have to take cover off; just snap in and out!	14.95

RECORDERS

Panasonic Tape Recorder
This is the tape recorder that has been most consistently recommended by Texas Instruments for use with the TI 99/4(A). We have tested it and find that it works very well. It has both volume and tone control. It also includes a digital counter.
*** RQ-2309A 39.95





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3M

DISKS AND TAPE

DISKS — ALL 5 1/4 WITH WRITE ENABLE NOTCH AND REINNFORCED HUB
Disks ordered in multiples of 10 come in a light cardboard box. Lesser quantities are packed loose.

***	744-0	5 1/4 single sided single density. Type most used with 99/4(A) and most popular computers.	$ 2.49
***	745-0	5 1/4 double sided double density	3.59
***	740-0	8" single sided single density; soft sector	2.55
***	741-0	8" single sided double density; soft sector	3.29
***	741-32	8" single sided double density; 32 hard sector	3.29

CLEANING KITS - 30 CLEANINGS PER KIT!

***	7400	8" Head Cleaner Kit	19.95
***	7440	5 1/4 Head Cleaner Kit	19.95

CASSETTE TAPE
For 99/4(A) and most other computers.

***	830-10	10 minute cassette in plastic case	1.29
***	830-30	30 minute cassette in plastic case	1.45

Plastic Library disk storage case for 10 disks (empty)

4253-7	5 1/4" disk size	3.95
4000-2	8" disk size	3.95

BOOKS

***	ADV 001	The Adventure Book of Hints	$ 5.95

by Scott Adams 16 pages
This pamphlet contains additional clues for you, the befuddled Adventurer. They are designed to help you with some of those sticky spots you have gotten yourself into without giving away anything you don't want to know yet. Pamphlet includes all the adventures and has some notes on making maps.

***	COM 001	The Basic Handbook (2nd Edition)	17.95

by David A. Lien Soft cover 480 pages
This book gives a simple step by step guide to translating programs from one computer to another. Organized in dictionary fashion, it is an encyclopedia of nearly 500 BASIC words and how to use them. While it does not reference TI BASIC, it is nevertheless a valuable tool for you programmers who are converting "foreign" programs into TI BASIC.

***	TIL 002	Fundamentals of Microcomputer Design	15.00

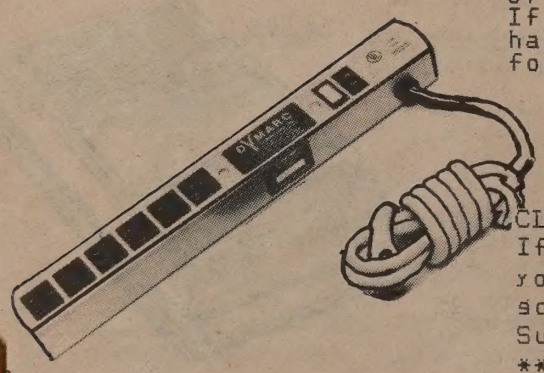
By Don L. Cannon Soft cover 584 pages
This book provides a basic and thorough understanding of microcomputer principles, regardless of the student's background. The book covers Software Development as well as Hardware Design. It is a valuable reference for anyone getting the Editor/Assembler or Mini-Memory Module.

**	TIL 001	Microprocessors, Microcomputers, and System Design	26.95

By the Staff of Texas Instruments, Inc.
Hard cover 534 pages
This book also provides a complete guide to the TI9900 family of microprocessors. Like the book above, it is an ideal tool for programming acctivities if you have or are considering getting the Editor/Assembler or Mini-Memory Module.

***		The 99'er Magazine, sample issue	3.95

Gary M. Kaplan, Editor published bi-monthly
This is the ONLY magazine exclusively for the Texas Instruments personal computers at present, and it is one of the highest quality magazines put out for ANY computer. If you're thinking of buying a computer, this magazine is an excellent investment. If you already have a TI 99/4(A) then you owe it to yourself to have every issue of the 99'er. See order form inside back cover for subscription information.



TRANSIENT SUPPRESSORS

CLIPSTRIP by Dymarc Industries
If power outages and "brownouts" are a problem in your area, or if your computer crashes when air conditioning or the refriserator goes on or off, you should probably have a CLIPSTRIP Transient Surge Suppressor.

***	CS-15-6		79.95

3RD PARTY SOFTWARE

AMERICAN SOFTWARE

Ski
Each player is required to maneuver through a series of gates without falling. Any number of players can participate. A superb job of simulation using graphics!
*** AMT 007 Cassette 14.95
*** AMD 007 Disk 16.95

Laser Shield
You must set the coordinates and shoot down the bombs before they destroy your cities. This is a challenging game with very good graphics.
*** AMT 008 Cassette 14.95
*** AMD 008 Disk 16.95

Space Battle 2056
You are the Earthfleet's last hope! You must rely on cunning and steely nnerves to outwit the enemy.
*** AMT 009 Cassette 13.95
*** AMD 009 Disk 15.95

Land on Mars
Landing is only half the fun. You must take off and dock with the orbiter. Hundreds of options to challenge you. Dragon option included.
*** AMT 002 Cassette 12.95
*** AMD 002 Disk 14.95

Meteor Shower (Extended Basic)
An arcade type game in which only the best pilots can survive. Ages 12 to Adult.
*** AMT 003 Cassette 9.95
*** AMD 003 Disk 11.95

Bomb Squad (Extended Basic)
As the time relentlessly ticks away, you must make tests on the bomb's circuits and use logic to deduce which wires to cut. Over 20 levels of difficulty make this game a challenge for the beginner or expert. Ages 12 to Adult.
*** AMT 004 Cassette 14.95
*** AMD 004 Disk 16.95

Mr. Frog (Extended Basic)
3 educational games for preschoolers. Letter Hop is a letter recognition game in which the child presses the space bar until the frog hops to the rock containing the correct letter. Rock Hop is a counting game in which the child must determine how many hops to a rock scattered among some lily pads. In Frog Race you race against a friend or the computer. Great graphics and music. Ages 3 and up.
*** AMT 005 Cassette 14.95
*** AMD 005 Disk 16.95

Barnyard Fun
A memory building game for children ages 4 and up. Great graphics and lots of fun.
*** AMT 010 Cassette 14.95
*** AMD 010 Disk 16.95

3-D Maze (Extended Basic)
Look down hallways, explore them, find the dead ends and the loops. Try to remember in what direction you are going and then find the exit! There are hundreds of mazes, some easy, some difficult. Ages 12 to Adult.
*** AMT 006 Cassette 14.95
*** AMD 006 Disk 16.95

Wizard's Dominion (Extended Basic)
Inside the caverns of the Wizard's Dominion lie gold, adventure and magical powers. Spend your gold wisely and prepare to meet a Voritka Ogre. This superb Graphic Adventure really shows off the powers of your 99/4(A). Ages 12 to Adult.
*** AMT 001 Cassette 19.95
*** AMD 001 Disk 21.95

CHASE COMPANY

TI Bingo (Speech Synthesizer required)
Choose from 3 versions: regular, four corner and "X". The program randomly picks a number from 1 to 75, assigns it an appropriate letter, calls it twice and then displays it. Besides speech, TI Bingo also has capabilities to print cards and to play automatically.
*** CHT 001 Cassette 17.95

EXTENDED SOFTWARE CO.

TI-Pwriter (Ext. Basic required; printer recommended)
A word processing program that will work with either cassette OR disk system. Full software control of your printer (depending on its capabilities) is permitted. Gives complete text editing capability. 20 page instruction booklet included.
*** EXT 001 Cassette 32.00
*** EXD 001 Disk 35.00

New
Name-it (Ext. Basic required; printer recommended)
A data management system for cassette or disk. Data can be randomly added, sorted into order and found or listed in ordered form. It can make mailing labels and can be used with the TI-Pwriter program (listed above) to generate form letters using the data in Name-It files.
EXT 002 Cassette 32.00
EXD 002 Disk 35.00

IMAGE PRODUCERS

Wall Street Challenge
Computer simulation of stock exchange. A challenging game that allows investment in both speculative stock and "Blue Chip" stock. Stock charts and the Dow Jones show the trends. For ages 13 and up.
*** CHT 002 Cassette 12.95

Wildcatting
Simulates hidden oil deposits which you will try to find. Select a location on a map using geological survey data giving probability of striking oil below that spot. An estimate of cost-per-meter to drill is also given. Different oil deposits created in each game. For ages 10 and up.
*** CHT 003 Cassette 12.95

INTERSOFT SOFTWARE

Meteor Storm (Extended Basic)
Your spacecraft is in deep space and caught in a meteor storm. The only way to avoid a fatal collision is to destroy the meteors with laser fire. You can control the direction and speed of your spacecraft. Points are accumulated by destroying meteors.
*** CHT 004 Cassette 13.95

LINEAR AESTHETICS SYSTEMS

The Cube
A graphic simulation of Rubik's Cube. The cube has six sides that are capable of being rotated right or left. Spinning the cube to view the back surface, unscrambling the puzzle and saving it when scrambled are commands that can be utilized.
*** CHT 005 Cassette 13.95

New
NORTON SOFTWARE
The entire high-quality line of Norton Software has just been added to our stock. We expect to receive shipment on them shortly. All programs are in Extended Basic. Programs on disk require the Memory Expansion Unit.

Graphics Package (Extended Basic)
This program enables you to create high resolution graphics in intricate detail in minutes. With the control of a few keys, this package has 3 levels of detail availiable ranging from 768 up to 49152 accessible points. Draw anything, any size anywhere on the screen. It will also draw straight lines between two points, circles, parabolas, ellipses, and a lot more automatically for you. All the information making up the graphics can then be saved on tape or disk to be incorporated into your own programs.
NST 001 Cassette 12.95
NSD 001 Disk 14.95

Music Synthesizer (Extended Basic)
This program enables you to develop music even if you have no musical background. With a few commands you duplicate the sheet music right on the screen. The computer will then play it for you. The music can be stored on tape for incorporation into your own programs.
NST 002 Cassette 7.95
NSD 002 Disk 9.95

Lunar Lander (Extended Basic)
It's the classic Lunar Lander with the arcade graphics. Demonstrate your clumsiness by crashing your ship into the moon of your choice.
NST 003 Cassette 9.95
NSD 003 Disk 11.95

NORTON SOFTWARE (continued)

Tank (Extended Basic)
This is the classic arcade type tank game. Play against the computer or an opponent. Destroy each other's tank while avoiding landmines.

NOT 004	Cassette	.....	7.95
NOD 004	Disk	.....	9.95

3-D Star Trek (Extended Basic)
This is one of the best known computer games. It has been around for a long time but the TI graphics add a new twist to the adventure.

NST 005	Cassette	.....	7.95
NSD 005	Disk	.....	9.95

Attack-Man (Extended Basic)
This game is similar to the pursuit games that you find in the arcades except that it is more of a challenge. Collect points while running through a maze being pursued by a gang of lovable hungry eaters. Can you make it to the energy pellet so you can turn on them? Most likely not.

NST 006	Cassette	.....	9.95
NSD 006	Disk	.....	11.95

Cross Country Car Rally (Extended Basic)
Inspired by the cannonball run. Race across the country--avoiding police, tourists, your rivals and a few surprises. This high resolution graphic road adventure can be yours for less than the cost of a speeding ticket.

NST 007	Cassette	.....	9.95
NSD 007	Disk	.....	11.95

Super Frogger (Extended Basic)
A frog's life is difficult. To get home safely you must cross a four lane highway with speeding traffic avoid piranha infested waters, snakes and crocodiles. There are more ways to lose this game than all other games combined.

NST 008	Cassette	.....	9.95
NSD 008	Disk	.....	11.95

PEWTERWARE

Bluegrass Sweepstakes
Eight horses run each race of the Bluegrass. Odds chart is given for betting purposes. Object is to accumulate as much money as possible by picking the winners. This is another great entertainment package for a party or get-together.

CHT 006	Cassette	.....	14.95

Decathlon
Split-second timing is required to play these ten Olympic events. Your player has one second to complete the first event, and 10 seconds to finish the last one. Test your sense of time by telling the player when to go. Fun for ages 10 and up.

*** CHT 007	Cassette	.....	14.95

Challenge Poker
Play the computer or challenge up to 3 friends to a game of poker. Score points by forming the best poker hands on a 5X5 gameboard. The first player to score 100 points is the winner.

*** CHT 008	Cassette	.....	14.95

Match Wits
Up to 4 players can play this entertaining game of concentration. For ages 16 and up.

*** CHT 009	Cassette	.....	14.95

PROGRAM DESIGN INCORPORATED **New**
Program Design has now been added to our list of to our list of Software. They present three IQ-Builder tapes which help teach reading and logic skills. All programs are in regular Basic.

Preschool IQ Builder
Teaches cognitive skills that children need in order to learn to read. Part 1, Same and Different, includes 6 programs which discriminate between 2 forms. In Part 2 Letter Builder, the child matches a letter on the TV monitor to one on the keyboard. Ages 3 to 5.

*** PDT 001	Cassette	.....	16.95

Code Breaker
This package consists of 3 games which each present a scrambled message. The first game scrambles letters within the words in the message; the following 2 games scramble not only letters but word order as well. Ages 10 to Adult.

**** PDT 002	Cassette	.....	16.95

Analogies
Some careful thought on program content has gone into this set of 6 programs that teach what an analogy is and what the common types are. The last program is an alalogies test. Ages 12 and up.

*** PDT 003	Cassette	.....	16.95

SOFTWARE EXCHANGE GROUP
These three sets each contain 3 programs. Each set is nicely boxed and documented.

Space Games (Extended Basic)
Alien Attack - 5 lives against endless attack by the enemy. This arcade type game has superb action graphics.
Invade the Empire - You must destroy 4 enemy vessels from your starship.
X-Wing Pilot - Squads of TI-fighters are escaping... destroy all or good bye rebel.

*** SET 001	Cassette	.....	12.95
*** SED 001	Disk	.....	16.95

Assortment Package **New**
Video Bowling - All the action of real score. One to four players.
3-D Tic Tac Foe - 3-D graphics, sound. one or two players.
Monster Match - The classic Memory Match game--with monsters, music and great graphics! 1 to 4 players.

SET 002	Cassette	.....	12.95
SED 002	Disk	.....	16.95

Atlantic City **New**
Slot Machine - Supergraphic slot machine for 1 to 3 players.
Black Jack - 1 or 2 players against the house. 52 card deck.
Shimmy - An exciting version of Baccarat. 52 card deck. 1 to 3 players.

SET 003	Cassette	.....	12.95
SED 003	Disk	.....	16.95

SOFTWARE INDUSTRIES

Space Race
This game is for those that think that they have mastered all the games on the 99/4(A). You must guide your spaceship through an array of stars, meteors, asteroids and black holes. There are different levels of play for any amount of players.

*** CHT	Cassette	.....	13.95

DO A FRIEND A FAVOR

Do you have a friend who has just purchased a TI-99/4A, or one who is considering the purchase of a computer? Send us his name and address and we'll send him a complimentary copy of the COMPUTER BULLETIN.

(contuinued from back cover)

This method of digitized speech is being utilized in a module for the first time in TI's soon-to-be-released-game, Parsec. Based on the same general theory as the arcade game Defender, Parsec is sure to become a big favorite. During the game the action is described by what sounds like a female Oriental voice with an Oxford accent.

If you like to program in Assembly Language, you can still use speech. There is a detailed section on speech in the Editor/Assembler Manual. These talking Assembly Language programs can then be run with the aid of the Editor/Assembler module, Mini-Memory module or in Extended Basic.

One last word about speech: you don't have to have sight to use the TI Home Computer. With the Speech Synthesizer docked into the side of your machine and the Terminal Emulator II in place, a blind person, by typing in LIST"SPEECH" can have the entire listing spoken (even if it isn't in a female Oriental voice). You can make the computer into a talking calculator or use it to verbally index addresses and phone numbers. Your own imagination is the limit.

A person who has done great things along this line is Duane Fischer, who is himself blind. As well as being a major force in the establishment of the 99/4 Users of America (of which he is president), he has done extensive work with the blind who would like to use computers. Duane is always glad to hear from others. His address is 5028 Merit Drive, Flint, MI 48506.

Just 2.98 shipping and handling-- any size order in the Continental USA.

WHAT TO DO WITH A TI 99/4(A) HOME COMPUTER (continued)

36. Find out how it feels to ride a camel across the desert with Pygmies chasing you. (1045)*

37. Keep a running total for all medical and dental expenses during the year. (PHM 3013)

38. Make a list of dates to remember for family members. Include birthdays and anniversaries as well as upcoming events. (PHM 3013)

39. Kids restless?? Put them to work by themselves on Hangman, Connect 4 or Beginning Grammar. Or, better still, work with them — for a learning experience that can be repeated over and over. (PHM 3037, PHM 3038, PHM 3003)

40. Find out what makes an airplane fly. (4365, 4385)*

41. Are you a ham radio operator? Keep a file on amateur radio operators by name and call sign. (PHM 3013)

42. Find out what your ideal weight is. (PHM 3021)

43. Learn the American Sign Language alphabet. (4367)*

44. Keep a list of all the people you want to send Christmas cards to. (PHM 3013)

45. Make an inventory of all your household goods for insurance purposes. (PHM 3013)

46. Have you gotten through that Fun House yet? OK. Take on a whole Ghost Town. (Ghost Town PHT 6051 & PHM 3041)

47. Think you're pretty good at bridge? Let your computer give you lessons in bidding and get even better. (PHT 6026, PHT 6039, PHT 6041)

48. Learn Morse Code the easy way — with your computer. (4313)*

49. Set up a budget system to coordinate your income and expenses for the coming year. (PHM 3007)

50. Buy a 99'er magazine and type in one of the game programs that are in every issue. Then play it.

51. Use your computer for a depreciation schedule. (PHT 6003)

52. Become an expert on Las Vegas with some of the many gambling games around — Craps, Poker, Blackjack, Slots, Acey ducey, Roulette — they're all here.

53. Use the Number Magic Module and drill with your child on simple math facts. He'll get faster — and so will you! (PHM 3004)

54. Employ your own personal Math tutor — your computer. So many, many programs and levels to choose from.

55. Is golfing your thing? Establish your course rating, then enter previous scores to find out your handicap. (8005)*

56. Take a vocabulary test. When you know all the words, change them to some of your own choosing. (4302)*

57. Let your computer help you with your 1982 Income Tax. (7020)*

58. Run a business and watch the results. (PHT 6018)

59. Learning a Foreign Language? Let your computer ask you the Foreign word and you type in the English. (4312)*

60. Keep track of ongoing auto expenses. Save on tape for later comparisons. (5416)*

61. Learn how your Biorhythm cycle works. (PHT 6015)

62. In a dilema? Don't know what to do? Making decisions is something your computer is really good at. You assign different weights and values and the computer will advise you. (5442)*

63. Teach Yourself Extended Basic. (PHT 6019 & PHM 3026)

64. Attend a metrics class. (4375* & PHM 3026)

65. Buy a speech synthesizer and add speech to all your programs. (PHM 3035 & PHM 3026)

66. Find out why everyone's raving about the new Mini-Memory module. (PHM 3058)

67. Do you have a printer? Or a friend with one? With the aid of the TI-Pwriter program, write a letter to a friend. Then you can make copies, changing only a few words and write to ALL your friends. (TI-Pwriter & PHM 3026)

68. In search of more Adventure? Don't run low on gold and magical powers. Enter the Wizard's Dominion to get rid of the ogre and find the gold. (Wizard's Dominion & PHM 3026)

69. Spend an evening with your family playing Bingo. (PHT 6025 & PHM 3026)

70. Have a ball!!! Let your guests choose and mix their own drinks (and see what they'll look like) from the recipes provided by your computer. But first you have to type the program in from Vol. 1 No. 4 of the 99'er Magazine.

71. Do a lot of bragging. Then your friends will buy computers of their own and you can start a User's Group.

For the dedicated Home User:

The dedicated home user — the hobbiest — wants to incorporate his computer into his daily living as much as possible. He wants a disk system and a memory expansion unit as well as a good printer. He will be writing his own programs — for his hobbies and for his own special applications. Here are some suggestions you may or may not have tried before. Just remember, the sky's the limit!

72. Teach a friend Basic — on your computer or his.

73. Design a map of the United States. Use Programming Aids I to help design the characters for the graphics if you wish. (PHT 6004 for cassette, PHD 5004 for disk.) Write a program to quiz on the states and their capitals.

73. Do the same with a World Map.

74. Teach a class or give a lecture. Write a program to demonstrate your subject and take your computer along. (One fire department in this area is giving a class in EMT and using a 99/4A to aid instruction.)

75. Write a program that will tell your fortune or read your horoscope. The computer can add a lot of random variety that will make it seem new with each use.

76. Design and print your own business forms.

77. Is geneology your bag? Make a family tree and store it on tape or disk. Figure the steps needed for automatic tie-in on updates.

78. Write a program applicable to your business or hobby. Send it to the 99'er Magazine for publication.

79. Offer to print address labels for your church's (club's) next mailing. (PHD 5001)

80. Write a program to keep track of your bowling scores throughout the season. Better still, keep track of each person in your league. Show trends. Use it as a predictor; a goal setter.

81. Do you have LOGO yet? Write a simple story for your child and let him illustrate it. (Naturally you will want to save it.) (PHM 3040)

82. While you're at it, join the Young Peoples' Logo Association. (It's for adults, too!)

83. Hooked on Adventure? Write your own and watch your friends struggle to solve it.

84. Use your computer to forcast the weather.

85. Do you speak a foreign language? Write a tutorial and drill.

86. Are you a Square Dancer? Using the Sprites, depict a square of dancers going through their various calls: Right and Left Through, Dosi Do, and Spin Chain the Gears!

87. Design and print your own greeting cards. Make use of your new-found computer art talent and a (somewhat) random word generator for verse.

88. Buy an Editor/Assembler (PHM 3055) and experiment with how well it can do your word processing for you.

89. Make a simple Basic program that will allow you control of your printer, using a file prepared on the Editor. Include such things as centering and right justification.

90. Using the same file, write a program that will check spelling for you.

91. Learn the Basics of Assembly Language.

92. Looking for new worlds to conquer? Hook up to Texnet. It's a whole new world of computing power, news service, electronic mail, market reports, consumer aids, financial service, programming power, and programs, programs, programs. All this and much more.

So there you have it. By now, you've had lots of ideas of your own. And when friends ask the question, "But couldn't you balance your checkbook just as well without the bother of the computer?" Or, "Couldn't you keep your recipes on index cards just as easily?" you can smile and agree. Yes, you could. However, there's more to it than that, and the simple act of putting your own information into that electronic monstrocity and receiving something useful and helpful back in return — knowing that YOU have mastered that friendly monster — is a thrill that makes every nickle of its cost worth it. And after all, who knows what you might eventually come up with from just such a small beginning? Suppose Norman Rockwell had said when he was young, "Why should I paint my own pictures? I can always look at Rembrandt's."

Even if you never go any further than using ready-made programs, you have the satisfaction of knowing you have broken the computer barrier — you're one of the knowledgeable. You know what computers are all about. Go ahead, enjoy! Your family is going to benefit from the many educational and fun programs available right now.

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Signature

TEXAS INSTRUMENTS OFFERS FREE SPEECH SYNTHESIZER

Between now and January 31, 1983, TI is offering a free Solid State Speech Synthesizer with the purchase of any six Solid State Software Command modules, or two Software Albums. The modules can be purchased all at once, or one at a time through the duration of the offer. Ask for a "Free Speech Offer" coupon and send it to TI, together with your orisinal sales receipts and proof of purchase. Soon your computer will be talking.

The integration of human voice and machine holds an age-old fascination for man. If you haven't yet experienced the excitement of a "voice-on-a-chip", you have a real discovery comming. It sounds a bit stilted at first, but you'll soon get used to that, and, if you're not careful, you'll find yourself talking back to it.

There are several ways you can use your Speech Synthesizer---from the very simple to the quite complex. When plugged into your computer, the Speech Synthesizer looks like a small, rectangular box. It is entirely electronic---no "hidden" voice recordings or any other traditional recording medium. In order to do its job it needs a module which is programmed to use speech plugged into the computer. TI already has a number of modules that use speech available, and they are planning more. Speech is great for teaching children reading, math and spelling. It also adds a new diminsion to games. Here is a list of presently available modules that use Speech technology:

PHM3015	Early Readins
PHM3043	Readins Fun
PHM3027	Addition and Subtraction 1
PHM3028	Addition and Subtraction 2
PHM3029	Multiplication 1
PHM3049	Division 1
PHM3059	Scholastic Spelling 3
PHM3060	Scholastic Spelling 4
PHM3061	Scholastic Spelling 5
PHM3062	Scholastic Spelling 6

Other modules, such as the Speech Editor, Extended Basic, and the Terminial Emulator II allow you to add speech to your own Basic and Extended Basic programs. You can also buy tapes and disks from TI which will talk when used with one of these modules. These include:

	PHD5030	Speak & Spell
PHT6031 &	PHD5031	Speak & Math
PHT6042 &	PHD5042	Spell Writer
PHT6025 &	PHD5025	Sat. Night Bingo
	PHD5002	TI-Trek

With the right one of the above modules plugged in, all you have to do is use the program. The Speech Editor has a resident vocabulary of over 300 words. Each word has been transformed into a pattern of bits. When processed, each pattern drives electronic circuitry that rebuilds the requested word and audibly reproduces it through a loudspeaker.

Two methods are provided for utilizing the vocabulary of the Speech Synthesizer. The Speech Editor feature requires no programming skills. You can listen to and experiment with computer-generated speech by simply typing words, phrases and sentences selected or formed from the resident vocabulary. You can also add speech to your own BASIC programs, again using and combining the resident vocabulary. This is actually a simple procedure, using two new sub-programs, Call Say and Call Speet.

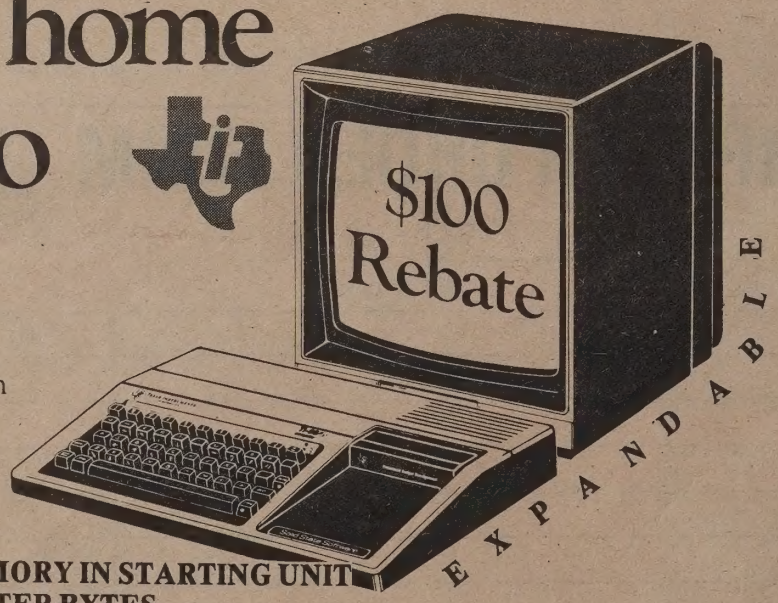
The Extended Basic Module also has speech capability, much the same as the Speech Editor. In addition, the Extended Basic Handbook goes into greater detail on how to combine words or parts of words to make new ones.

But if your computer talks, you will eventually want the Terminal Emulator II. For this module is truly remarkable. With it, you can add virtually anything you please to your Basic programs. You can also develop a personality for your own personal Voice. Inflection, pitch and emphasis can be programmed in, and your voice can speak high or low or in a whisper. If you If you do some really fancy programming you can even teach it to sing!

When you input text to be spoken, the module first translates the English text into its allophonic equivalent, using the speech rules programmed into the module. an allophone is the smallest unit of speech that can be distinguished from another unit---for instance, distinguishing between the p in pin and the f in fin. Next, the allophone strings, which may include pitch modifiers, are converted to Linear Predictive Coding (LPD) strings. These strings are then processed through the Speech Synthesizer and spoken.

(continued on page 10)

Take a Texas Instruments computer home and $100 to the bank.



A hundred dollars. That's what Texas Instruments will send you when you buy a Home Computer and mail in the coupon between now and January 31.

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